

Title: *Scraper for Tillage Implement*

Serial No. 10/788,624

Filed: 02/27/2004

Inventor: Cooper

Page 4

#### **REMARKS**

The Examiner has rejected all of the claims, namely, claims 1-3 and 5-7, as being obvious over a combination of Bauer et al., U.S. Patent No. 523,508 and Bucknam, U.S. Patent No. 1,663,329. As hereinafter described, applicant has amended the pending claims in order to more particularly define the invention for which protection is sought. Reconsideration of the Examiner's rejections is respectfully requested in view of the following comments.

Claim 1 defines a blade scraper for a tillage implement having a frame, a horizontal shaft suspended from the frame, a plurality of rotating disk blades arranged in laterally spaced relationship on the shaft, and a hub spool surrounding the shaft between at least a pair of adjacent disk blades. A first end of the spool contacts one of the pair of adjacent disk blades thereby creating a transition joint between the first end of the hub spool and a surface of one of the pair of adjacent disk blades. The disk scraper includes a bracket having an upper portion connected to the frame and a lower portion at an obtuse angle to the upper portion. A rotating disk mounted to the lower portion of the bracket. The rotating disk has an axis of rotation perpendicular to the lower portion of the bracket and a circumferential edge. The upper portion of the bracket is connected to the frame and the rotating disk is mounted to a lower end of the lower portion of the bracket such that the circumferential edge of the rotating disk is adjacent the transition joint and such that the lower end of the bracket is between the rotating disk and one of the pair of adjacent disk blades. The surface of one of the pair of adjacent blades is concave in shape and the one of the pair of adjacent disk blades includes an annular depression relative to the concave surface. The annular depression surrounds the transition joint. The circumferential edge of the rotating disk is located within the annular depression. The concave-shaped surface defines a cavity and the rotating disk is received entirely within such cavity. As hereinafter described, nothing in the cited references shows or suggests disk scraper including a bracket having an upper portion connected to the frame and a lower portion at an obtuse angle to the upper portion wherein a rotating disk is connected to the lower end of the lower portion of the bracket. As a result such arrangement, a circumferential edge of the rotating disk may be received within the annular depression in the surface of the one of the pair of adjacent disk blades so as to keep the concave

Title: *Scraper for Tillage Implement*

Serial No. 10/788,624

Filed: 02/27/2004

Inventor: Cooper

Page 5

surface of corresponding disk blade clean from the hub on out to the cutting edge by way of rotation of the rotating disk.

The Bauer et al., '508 patent discloses a disk blade scraper having a bracket or shank connected to the frame. As been seen in figure of the '508 patent, the shank extends along a axis and a rotating disk is rotatably mounted to the lower end of the shank. The rotating disk rotates about an axis perpendicular to the shank. As a result, the rotating disk in the '508 patent is generally parallel to the inner surface of the main disk. Consequently, it can appreciated that it is highly probable that the area between the rotating disk and the main disk may capture the dirt/residue buildup therebetween as the tillage implement is pulled through a field. This mounting arrangement differs substantially from the mounting arrangement of claim 1. By having the rotating disk rotate about an axis at an obtuse angle to the upper portion of the bracket, the blade scraper of the present invention is able to keep the concave surface of corresponding disk blade clean from the hub on out to the cutting edge by way of rotation of the rotating disk. As hereinafter described, the Bucknam '239 patent cannot overcome the deficiencies of the '508 patent.

The Bucknam '239 patent discloses tillage implement including rotating disk blades arranged in laterally spaced relationship on the shaft. The disk blades include an annular depression and are spaced by corresponding hub spools. It is noted, however, that nothing in the '239 patent shows or suggests providing a disk blade scraper, much less the structure for attaching the disk blades to the implement.

As there is no teaching or suggestion in the cited references to provide a disk scraper including a bracket having an upper portion connected to the frame and a lower portion at an obtuse angle to the upper portion wherein a rotating disk is connected to the lower end of the lower portion of the bracket, it is believed that independent claim 1 defines over the cited references and is in proper form for allowance. Claims 2-3 and 5-7 depend either directly or indirectly from independent claim 1 and further define a disk blade scraper not shown or

Title: *Scraper for Tillage Implement*

Serial No. 10/788,624

Filed: 02/27/2004

Inventor: Cooper

Page 6

suggested in the art. It is believed that claims 2-3 and 5-7 are allowable as depending from an allowable base claim and in view of the subject matter of each claim.

Applicant believes that the present application with claims 1-3 and 5-7 is in proper form for allowance and such action is earnestly solicited. Should the Examiner consider any fees to be payable in conjunction with this or any future communication, authorization is given to direct payment of such fees, or credit any overpayment to Deposit Account No. 50-1170.

The Examiner is invited to contact the undersigned by telephone if it would help expedite matters.

Respectfully submitted,



Peter C. Stomma, Reg. No. 36,020

Dated: 5/21/07

BOYLE, FREDRICKSON, NEWHOLM, STEIN & GRATZ S.C.  
250 Plaza, Suite 1030  
250 East Wisconsin Avenue  
Milwaukee, WI 53202  
Telephone: (414) 225-6306  
Facsimile: (414) 225-9753